«Synergy between manufacturing excellence and sustainable manufacturing at Syngenta»

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Syngenta's Global Manufacturing Excellence (ManEx) function aims to enhance the competitiveness of manufacturing assets while promoting sustainable operations. The proposed presentation examines the integration of operational efficiency and environmental sustainability within Syngenta's production processes, focusing on the company's commitment to reducing greenhouse gas emissions in alignment with Science Based Targets initiative (SBTi) goals.

The Syngenta Production System, implemented across 26 global manufacturing sites, provides a framework for continuous improvement and daily performance management. This system is crucial in supporting Syngenta's pledge to reduce Scope 1 and 2 emissions by 38% by 2030 (baseline 2022), as outlined in the 2024 ESG report. The company is also developing targets for Scope 3 emissions reduction for its Crop Protection and Seeds business units. The presentation highlights two primary approaches to emissions reduction: efficiency measures and transformational initiatives.

Efficiency measures focus on optimizing energy consumption, improving material utilization, enhancing process control, and standardizing operations. These short-term, controllable interventions aim to reduce CO2e emissions while simultaneously optimizing manufacturing costs.

Transformational initiatives involve more significant changes, such as transitioning to renewable energy sources, electrifying processes, and implementing carbon capture and storage technologies. While these measures have a more substantial impact on emissions reduction, they often require longer implementation times and higher investments.

The key case study that will be presented examines the optimization of energy (steam) consumption in distillation processes. By leveraging the Syngenta Production System, the company aims to continuously monitor steam consumption and distillation performance, identify parameters causing yield deviations, and implement targeted measures to maintain optimized standards. This approach not only addresses Scope 2 emissions but also enhances overall production efficiency.

The presentation shows how Syngenta's integrated approach to manufacturing excellence and sustainability creates a competitive advantage. By improving operational discipline and implementing data-driven optimization strategies, the company expects to achieve significant improvements in both production performance and environmental impact.

In conclusion, the presentation illustrates the potential for synergy between manufacturing excellence and sustainable practices in the agrochemical industry. Syngenta's approach serves as a model for how companies can align operational efficiency goals with environmental commitments, potentially leading to both cost savings and reduced ecological footprint.